



# Closing the disconnect in ESG data: Part 2

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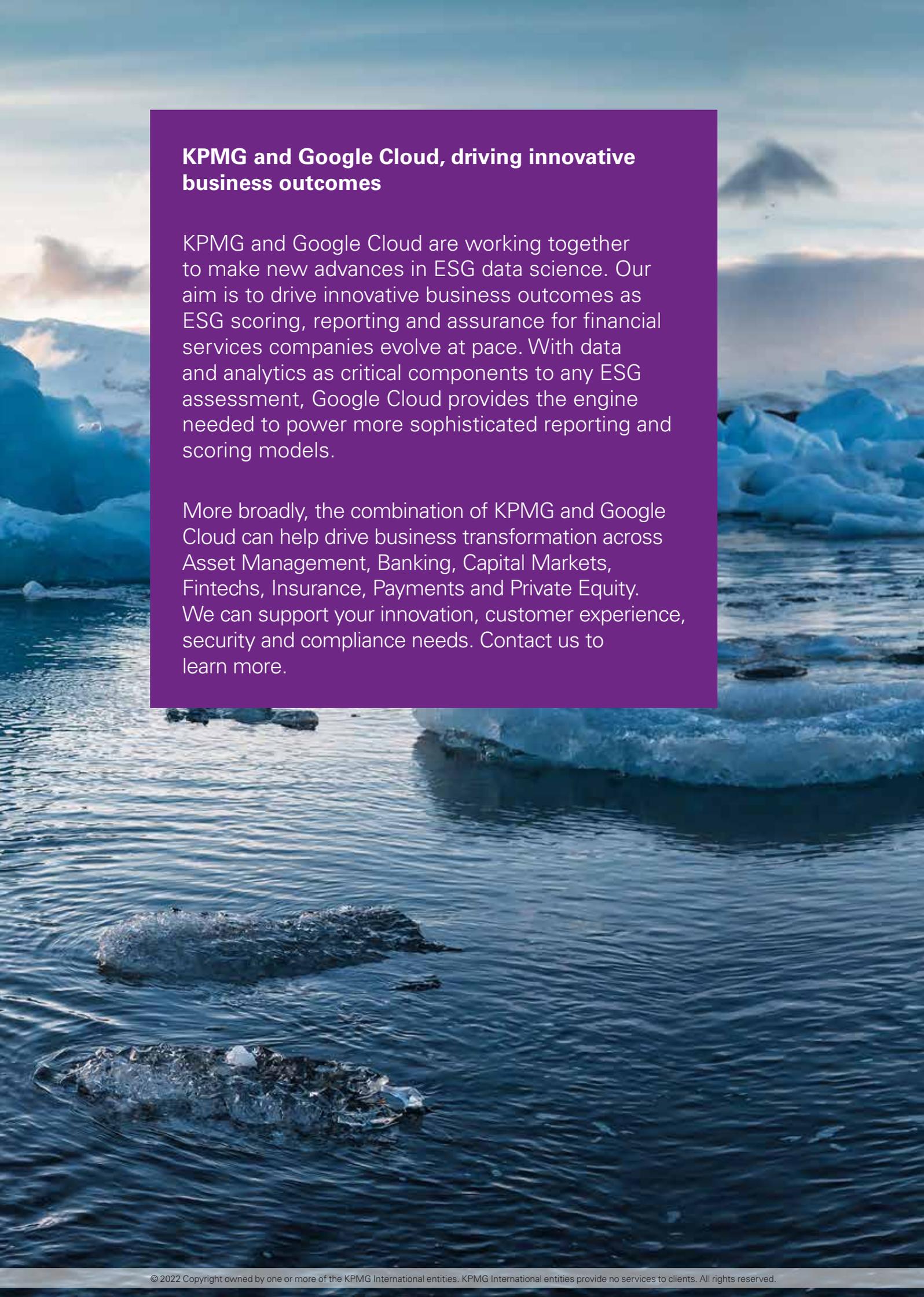
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KPMG and Google Cloud are working together to make new advances in ESG data science. Our aim is to drive innovative business outcomes as ESG scoring, reporting and assurance for financial services companies evolve at pace. With data and analytics as critical components to any ESG assessment, Google Cloud provides the engine needed to power more sophisticated reporting and scoring models.

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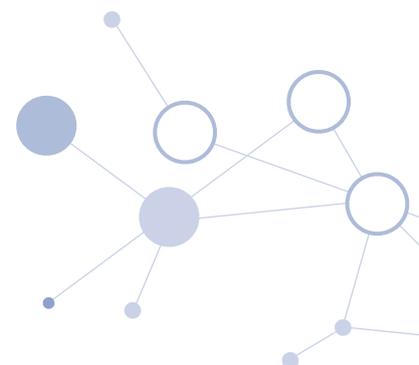


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# Executive summary

The financial services industry's shift toward a business model that embraces environmental, social and governance (ESG) factors is a powerful movement with unstoppable momentum. But as firms such as banks, insurers and asset managers think about how to do good while also doing well, they face some fundamental questions. What does good look like — and how should success, or otherwise, in progress towards it be measured. These are just a couple of examples.

These are not simply academic questions for financial services leaders. In a world in which their stakeholders are increasingly determined to hold them to account, the ability to provide a detailed and verifiable account of ESG performance is vital — both of their own performance, as well as that of the organizations they finance. Regulators now expect nothing less — and are raising the bar on what constitutes detailed and verifiable. So, too, are the industry's customers, employees, and investors. Baseline levels of disclosure are already higher than ever and are expected to continue to evolve and mature.

Moreover, even without such demands for greater accountability, financial services leaders recognize the value of ESG insight. More accurate and timely information holds out the promise of better risk management, one that looks crucial in a world where climate change is driving more extreme weather events, or where the market valuation of a business can plummet in a matter of minutes by a simple remark posted on social media. Equally, ESG insight can also provide increased opportunity, from underpinning new products and services to securing competitive advantage in the recruitment market as prospective talent seek to work for companies that demonstrate a notable commitment to deliver impact and drive change.

For all these reasons, the need for a step-change in the quality and quantity of ESG data is even more pressing. The financial services sector is determined to secure not only a greater breadth of ESG data across its entire value chain, but to also unlock more granular data, and to put more powerful tools to work to drive actionable insight from information. It is also focusing on how to automate aspects of ESG reporting as workloads increase.

This is the second of three in-depth analyses into ESG data challenges and opportunities across the financial services sector. In the first paper,<sup>1</sup> we outlined where ESG data is lacking and the problems this is causing. Now, we discuss how to move forward and investigate how the evolution of regulation both raises the bar on ESG data while also bringing some of the solutions; we consider where ESG data is to be found, including previously inaccessible pools of information and we discuss the technologies and approaches that the industry currently has at its disposal.

The challenge is to build a next generation model for ESG data. The current picture is indistinct and patchy — now is the time to fill in the gaps and sharpen the focus.



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# The quest for a robust ESG data solution

The year ahead looks set to bring another 12 months of rapid evolution in the financial services industry's engagement with environmental, social and governance (ESG) issues — and the data that maps them. In the European Union alone, 2022 will see the implementation of level two of the Sustainable Finance Disclosure Regime, the EU's Taxonomy and new requirements for the way intermediaries discuss ESG with investors under the MiFID regulation.<sup>2</sup> Other international jurisdictions have similarly active plans; in the US, the Securities and Exchange Commission recently announced their proposed rules to enhance standardized climate disclosures for investors.<sup>3</sup>

## This is what investors want

Research by PA Consulting<sup>4</sup> reveals almost nine in 10 consumers now want more sustainable financial services and products; far fewer consumers (less than two in 10), believe that financial institutions are meeting this demand and are committed to a wider purpose beyond optimizing profit. Bloomberg Intelligence<sup>5</sup> believes the global sustainable finance market will be worth more than USD50 trillion within the next five years.

Moreover, financial services businesses are eager to immerse themselves in ESG analysis. They recognize the need to understand the risks and financial impacts posed by key ESG issues, as well as accounting for Scope 3 financed emissions; Swiss Re,<sup>6</sup> for example, has calculated that climate change risk alone could add USD183 billion a year to the cost of property insurance by 2040. New opportunities are also emerging. The banking group HSBC,<sup>7</sup> for instance, is now incorporating climate risk data as part of its attempts to manage credit risk more effectively.

However, as the ESG debate continues to mature, a familiar problem remains — how do financial institutions and their clients build robust and transparent datasets on key ESG issues? Without this data, the industry

is missing the crucial pieces of the jigsaw it requires to drive truly actionable insight and is struggling to justify and account for its decisions and behaviors to its key stakeholders, from regulators to employees.

The good news is that progress is being made. In the environmental realm, the EU's work<sup>8</sup>, for example, aims to build standardized definitions on key sustainability issues and to mandate agreed forms of disclosure (and minimum standards for those disclosures). Although these will add to the compliance workload over the coming years, they at least provide more certainty on what to measure and how to do it.

Elsewhere, groups such as the World Economic Forum<sup>9</sup> continue to discuss how to bring greater consistency to a broader set of metrics on ESG issues. The World Business Council for Sustainable Development<sup>10</sup> has set out a vision for measuring emissions and other key environmental metrics, including, for example, the recommendation to "consolidate data from existing corporate greenhouse gas reporting into aggregated corporate determined contributions and use the annual UN Climate Change Conference to assess business progress against targets."

Another promising development is the recent establishment by the International Financial

Reporting Standards Foundation (IFRS) of a new standards setting body, the International Sustainability Standards Board<sup>11</sup> (ISSB), whose mandate includes the development of a comprehensive global baseline of sustainability-related disclosure standards to provide capital market participants with information pertaining to companies' sustainability-related risks and opportunities.

This work is expected to bring the rigor of accounting standards to sustainability. The IFRS has set an initial deadline of June 2022 to consolidate the Climate Disclosure Standards Board and the Value Reporting Foundation, which houses the Integrated Reporting Framework and the SASB Standards. This consolidation will provide a base on which to build a new set of reporting and disclosure standards for a global constituency.

Nevertheless, significant issues remain. Work on taxonomies and standards is at risk of being undermined by the lack of agreement on which data sources provide validation. The long-term goal of an ESG landscape where all market participants are agreed on a standard universe of data domains that are reliable, both for sourcing and for validation, currently remains a distant one.

### **Beyond compliance**

While regulation is undoubtedly evolving at speed, for many organizations, even compliant ESG reporting and disclosure may not be sufficient to meet their own requirements.

The question of timeliness and temporal coverage is a case in point. For one thing, no regulator can ask investors to make use of data not yet disclosed when allocating portfolios; until reporting cycles are accelerated, ESG analysis will likely continue



In other words, even in a perfect world, by regulatory definitions, where there is agreement on standardization and a collective commitment to transparency, many financial services businesses may still feel frustrated.



to depend on significant volumes of historic information — a company report published 10 months ago, for example. Equally, for many financial services businesses, historical ESG data provides crucial intelligence about a business's performance over time, its aspirations and its attitudes. Short-term snapshots without comparable historical data will not suffice here either.

More broadly, the specific data now required by regulators will now include the much deeper contextual datasets needed to drive meaningful ESG insight — both for evaluating the ESG credentials of potential borrowers, policyholders and investee businesses, and those required to make robust risk judgements about those organizations.

In other words, even in a perfect world, by regulatory definitions, where there is agreement on standardization and a collective commitment to transparency, many financial services businesses may still feel frustrated. To produce meaningful and actionable insight and achieve their broader ESG goals, they will need access to new types of data that go well beyond those set out by the regulator.

They will likely also need a set of new tools with which to interrogate and analyze that data.





# In search of new datasets

**W**hat financial services businesses need now is a framework for a more universal data solution — a structure that goes well beyond what regulators require, while also satisfying compliance processes.

That is not simply a question of adding ever more data to the model. The challenge is also to verify and validate — to find data that is useful for triangulation, particularly to overcome skepticism and cynicism about self-reporting and reliability of disclosures. And in practice, moving closer to a corroborated and objective truth will require access to some very different types of ESG data.

Nor is the challenge only an environmental one. In the social realm, it will likely be necessary to source trusted data on everything from racial equality to social and gender bias.

In practice, these needs might be categorized as falling into four groups. Firms should expect to require:

- new enterprise data and operational data at a facility level, such as for fair lending tracking for under-served communities;
- new external data, such as emissions from utility providers, and market data from ratings providers;
- new derived data, such as a quantification of risk to earnings due to ESG exposures;
- and they will likely need new reference data to keep all the various ESG data sets correlated.

## Curated ESG datasets

In recent years, a whole industry of ratings and reference agencies has developed to help map organizational ESG performance in a variety of different ways. MSCI, Sustainalytics, Refinitiv, S&P Global — and many more, ranging from NGOs with an interest in a single issue to broad-based businesses — all offer data and insights. Much of this work is based on environmental performance, but social and governance analysis is increasing.

These agencies collect ESG data from a variety of sources, including publicly available information, as well as data procured through direct engagement. In aggregate, and with careful analysis, these inputs enable agencies to provide very specific ESG outputs, including ratings for corporates, sovereigns and other organizations that score both overall performance and on specific issues, and distinguish between entities and asset classes.

Clearly, such outputs are valuable to those organizations in need of data to make their own decisions where ESG may be a factor, particularly where they lack the resources or expertise to make judgments for themselves.

However, these curated ESG datasets are not perfect: ratings are based on limited historic information and, in some instances, are outdated. And the process of converting source material into an ESG rating requires a series of subjective judgements. This is one reason why any two agencies rating an organization on ESG factors can come up with very different scores or assessments. Agencies themselves have stated<sup>12</sup> that the diversity of ratings is evidence of a healthy and mature marketplace, but users must make their own judgments about which to use and when.

In practice, for many financial services organizations, the ESG ratings they procure from ratings agencies — while useful — serve as only a starting point.



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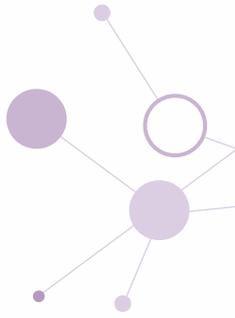
### Private-held datasets

Some of the most valuable ESG data is currently considered private and confidential. In some cases, businesses — for perfectly valid commercial reasons — may not feel able to make certain data publicly available or may even be limited by regulatory factors. A publicly-listed consumer goods company, for example, may not be comfortable disclosing its plastic usage over a particular period, given the potential for competitors — or even the broader market — to use such information to deduce sensitive earnings data prior to their formal release. In other cases, companies may simply be reluctant or uncomfortable releasing non-required data, as it may expose poor performance levels — or highlight a lack of progress on social goals. As an example, some US banks are excluding certain portfolios from Scope 3 disclosure reporting as it negatively impacts the Community Reinvestment Act.

By its very nature, this confidential internal data has the potential to drive real insight on an organization's ESG performance. It is likely to be more current than what is available in the public domain, and it may also shine a light on a particular area of concern.

Finding new ways to unlock this data is, therefore, a promising avenue to explore. In time, certain industries with evolving regulation on disclosure and reporting will likely force many organizations to publish their more potentially sensitive ESG information in the long term. Collaboration is progressing with signs in the private equity sector, for example, of investors standardizing and sharing ESG data to create anonymized benchmarks.<sup>13</sup>

However, there may be many more imaginative ways to leverage the value of private data that stops short of requiring full public disclosure — including shared access to corporate data as we will discuss later in this paper.



Finding new ways to unlock this data is therefore a promising avenue to explore. 



### Public datasets

Publicly available datasets provide the broadest range of ESG data but can be easily overlooked. And, while some of this data may already be currently mined by ESG ratings agencies — for company reports and filings, as an example — securing the original source material can reduce exposure to the subjective judgements made by third parties. Either way, other pieces of the jigsaw fit less easily into their metrics and processes.

Geospatial data is one good example, providing near or real-time read-outs on a remarkably broad range of ESG issues — everything from emissions performance to deforestation. Such information often provides a means with which to triangulate, calibrate and validate the claims made by organizations about particular issues.

Similarly, public conversational data is also a valuable resource. When collected and analyzed effectively, information shared through both traditional and social media can provide near or real-time insights and highlight some issues well before they find their way into formal disclosures. They can also help to capture shifting sentiments.

Regulatory filings may also help to unlock the organizational performance data not normally shared via more traditional means. The work of non-governmental organizations in many sectors often provides an on-the-ground snapshot of the latest developments from across the industry.

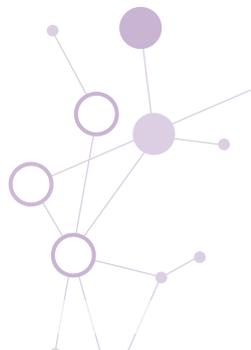
### The value of context

By pulling together as much ESG data as possible, from all three available sources — curated, private and public datasets — the ability to build a much more detailed and fulsome picture is increased greatly.

But bringing the wider picture into focus also requires something else — an understanding of the broader context, and the lack of standardized ESG taxonomies makes this even more challenging.

Indeed, without the right contextual data, meaningful ESG target-setting and insight is difficult to secure. To build a reliable model from the bottom up requires not only the foundations to be in place, but also the more advanced datasets as well. To take a basic example, the water usage of a particular industrial facility needs to be viewed in the context of water scarcity or, otherwise, in the local area. The demographics of a business's workforce require qualification against the demographics of the local population from which it recruits.

More broadly, even with both contextual data and ESG data combined, the challenge is to build a picture, layer by layer, that brings clarity, rather than an unreadable mess. Just adding more data does not deliver the required clarity. To achieve this, new solutions and tools that harness the full power of technology will likely be required.





# New tools to drive ESG insight

**W**here will the financial services industry find the tools and engines it needs to make sense of the growing universe of ESG data — both to access those untapped pools of information and to draw insight from them?

The reality is that there is no single answer. Many have begun to build their own tools or have started thinking about how to stitch together something from the myriad offerings available from specialist providers. Those that are at an earlier stage are content, for now at least, to rely on the more traditional solutions, despite the limitations.

The good news is that work is progressing at pace with a promised capacity to provide far richer ESG insights than ever before — and to help resolve some of the sector's concerns about inconsistency and timeliness. This capacity depends on platforms with the enormous computing power available from cloud-based solutions — vital given the sheer volume of data to be sifted and analyzed — as well as a range of emerging and evolving technologies. Data indexing, semantic modelling and analytics, machine learning, artificial intelligence, natural language processing, workflow automation — and many more — all have a role to play.

## **Bespoke ESG platforms**

KPMG's own [ESG IQ platform powered by Google Cloud](#) is a great example of what is possible. It offers clients the opportunity to select and pool together both structured ESG reference data from multiple providers and unstructured data from a wide range of sources, including news reports, social media posts, blogs, NGO reports, research reports, and web pages. It can also extract ESG data from hidden data pools, such as legal documents and trade confirmations, using natural language processing techniques.

Its goal is to deliver a much more granular analysis of an organizations' ESG performance — and to do so across multiple asset classes, including government bonds, corporate debt and illiquid assets, as well as

equities (including multiple securities related to the same parent), all available through a single platform.

In practical terms, financial services clients have access to a read-out of the ESG standing of the organization being reviewed. With this illustration in hand, the subsequent task for financial institutions is to decide how to apply the information to the decisions they make as investors, lenders and insurers. Depending on their ESG stance and the materiality of particular ESG issues or drivers, different firms may naturally take different views.

Beyond the financial services sector, other organizations can use ESG IQ to compare their performance against their peers — and investigate what changes are required to their reporting and disclosure, and corporate behaviors to close any gaps.

The wider opportunity is to further develop and extend these tools for additional impact and greater effect. For example, KPMG firms' are looking at how businesses could link the ESG IQ tool to their customer relationship management (CRM) systems to help systematize part of the engagement process. This would enable a more immediate and proactive engagement with any red flags being raised automatically, triggering an immediate request for further investigation.



Work is progressing at pace with a promised capacity to provide far richer ESG insights than ever before.



Indeed, financial services businesses, with their uniquely powerful view across multiple industries and sectors, can play a valuable role here. They are in an ideal position to help clients better understand what good ESG practice looks like across their industry, what metrics are lacking and to help promote standards more widely.

### Guided access to new data analysis

Shortly before the COP26 Climate Summit in Glasgow in November 2021, Google announced it would begin to offer its Earth Engine tools to commercial customers,<sup>14</sup> including those within the financial services sector. Google Earth Engine — which academics, scientists and NGOs have been using for over a decade — includes curated satellite imagery and geospatial datasets and planetary-scale analytics. Harnessing its tremendous cloud computing capacity enables the analysis of how the planet is changing and how human activity is contributing to those changes.

Previous projects have included a partnership with Global Forest Watch, a network organized by the World Resources Institute, to create a living map of forest loss,<sup>15</sup> and with Global Fishing Watch to track global fishing activity across world oceans.<sup>16</sup> Now, there is an opportunity for financial services businesses to use similar techniques to pursue their ESG goals.

The ability to monitor broad supply chains is one good example. In 2020, the consumer goods giant Unilever<sup>17</sup> announced it would use Earth Engine data and modelling to monitor its commitment to zero deforestation through its supply chain for palm oil.



Harnessing Google's tremendous cloud computing capacity enables analysis of how the planet is changing and how human activity is contributing to those changes.



The collected data helps Unilever to map where their suppliers are sourcing their palm oil from and to monitor the impact over time on local habitats and ecosystems. This, in turn, provides verifiable data to Unilever's own community of stakeholders.

It is in this context that some of the richest ESG insight can be driven. For example, the platform could make it possible for asset managers investing in the energy sector to analyze polluting power plants (or for their peers in transport) to identify the dirtiest roads; this could also help to provide deeper insights into those groups that might be the most impacted by these facilities — such as a particular minority group suffering disproportionately.

Similarly, for a bank considering lending to the agricultural sector, geospatial data may help to provide a view of how a particular farm or industry is impacting the land. Historical weather and water availability data makes it possible to establish whether the amount of water a farm is using is sustainable or not. Already, financial services businesses are gearing up to secure emissions data for counterparties to which they have made loans; this can help inform their Scope 3 calculations.



Equally, for an insurer asked to protect a particular property, geospatial analysis now makes it possible to calculate with much greater certainty what might happen to that property from an environmental perspective — its propensity to flood or to suffer from wildfires. And, not just in several decades' time, but in the immediate days, weeks and months ahead.

### Unlocking the conversation

We are just at the beginning of this journey and examples that demonstrate how new tools can be harnessed for ESG projects are only just starting to emerge. Initiatives such as Project Air View based on the data collected by Google Street View cars has mapped air quality to produce hyper-local air quality information.<sup>18</sup> Project Sunroof mapped more than 107 million rooftops to help estimate their solar energy potential and cost savings from 21,500 cities across the US and Germany.<sup>19</sup>

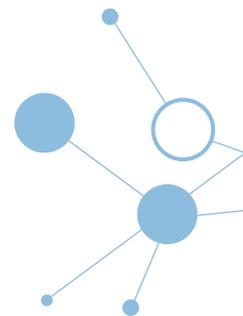
The GDELT Project,<sup>20</sup> an initiative launched to build a greater understanding of the connection between communicative discourse and physical societal-scale behavior, monitors millions of sources of broadcast, print and web news, tracking sources produced in more than 100 languages to provide a rich seam for sentiment analysis, event reporting and other crucial ESG tasks.

### Shared access to corporate data

Another exciting possibility is the idea of using cloud-based collaborations to unlock the private datasets discussed on page 8. Cloud platforms enable collaborative groups to load, access and analyze complex datasets in a controlled environment. Google Cloud's [Analytics Hub](#), for example, could enable the secure sharing of ESG data across financial services firms.

This cooperation could allow businesses to share more sensitive data with a chosen number of key partners, including certain ESG reference agencies, or their lenders, investors and insurers. The data would then be made available to these third parties to use more widely for ESG purposes without the need to release it into the public domain.

Building such collaborations will likely take time, with trust required on both sides. There is an opportunity for financial services businesses to push the agenda. Going forward, it is not unreasonable or unrealistic for a bank, in order to meet its own commitments on sustainable lending, to demand more data and information on sensitive sustainability metrics from a would-be borrower if that data can be provided privately and securely.



Financial services businesses are gearing up to secure emissions data for counterparties to which they have made loans; this can help inform their Scope 3 calculations. 

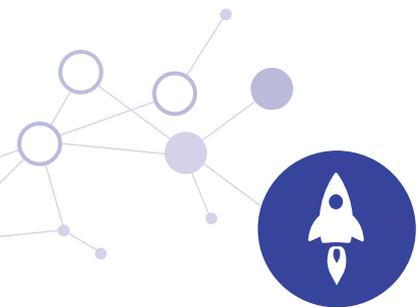
## Automating data discovery

One of the biggest challenges facing the financial services sector will likely be how to leverage these new tools and capabilities to serve their global customer base at scale. The economic value of their very largest customers may justify a more bespoke approach — assuming the business has the data science and broader ESG expertise to pursue it — but for many customer segments, this can only be viable when applied in aggregate.

Bank lending is a good example. Many banks have set ambitious targets for the proportion of lending that will be accounted for by sustainable finance: in the UK, NatWest<sup>21</sup> has pledged to provide £100bn of climate and sustainable funding and financing by the end of 2025. To achieve this will require lenders to systematize the way they vet loan applicants to help ensure their lending is genuinely sustainable.

Work is progressing here, with new platforms that not only apply systematic sustainability rules to the consideration of loan applications, but also captures the required documentation and other evidence so that it becomes available for later reporting and disclosure. The Spanish bank BBVA, for example, tracked sustainable financing to wholesale, corporate and individual clients worth €61.4 billion between 2018 and 2021.<sup>22</sup> Banks must be able to evaluate sustainable finance applications at scale and provide robust reporting to their own stakeholders. To do this will likely require a significant degree of automation, particularly when working with thousands of small businesses or individual customers.





# Conclusion: Toward a reliable source of the truth

**N**o-one is suggesting there will be a big bang moment for ESG data. Every financial services business can naturally take an iterative approach to working to improve the data and analytical models on which they base their decisions. It makes good sense to add more data over time as it becomes accessible and verifiable, rather than obsessing over what is still missing.

Indeed, sharpening the picture further will inevitably become more difficult. As the low-hanging fruit becomes harder to find, unearthing and validating additional insight will likely require further resources, including investment in the emerging technologies of data discovery and analysis. Moreover, as new data flows into the model, the task of triangulation becomes even more challenging. The end destination — that single source of the truth — may sometimes feel tantalizingly out-of-reach.

If that sounds daunting, there are precedents that should give us hope. Take the acceleration of the mapping of the human genome. A project that began in 1990, and was expected to take decades, was completed within 13 years as multiple groups coordinated and collaborated to build a single dataset — and took advantage of emerging technologies and new ways of working. Sometimes data science requires lateral thinking and imagination as well as statistical endeavor to solve the problem.

The financial services industry, like other businesses, has been down this road before. What we are now looking for in an ESG context is not that different from the way in which financial reporting has developed over time, with collaboration, innovation and regulation leading to a continuous cycle of improvement in the data that is required for disclosure as well as assessing the impact to financials.

There is plenty to learn from existing cycles. What controls do we need for a given metric? Where will the data come from, who will manage its quality and who owns the information? What is the governance process for bringing the data together? How do we help ensure meaningful comparisons are possible? Who should check accuracy and certify after disclosure, and what is the process for corrections?

As financial reporting has developed, these questions — and many more — have all been asked before and subsequently answered. They can be useful as we build new ESG data frameworks.

The key is to keep an eye on the prize. Closing the data disconnect not only helps to resolve the regulatory challenge but also helps to mitigate the risk and unlock the opportunity. As understanding of the financial performance of businesses has become more sophisticated, strategic decision-making has become more insightful — and delivered better outcomes.

With continued focus, ongoing collaboration and a collective commitment across the impacted stakeholder groups, an improved understanding of ESG performance can drive the same dividends.





The key is to keep an eye on the prize. Closing the data disconnect not only helps resolve the regulatory challenge but also mitigates risk and unlocks opportunity. 



# Acknowledgements

We would like to thank financial services, data and ESG thought leaders from KPMG and Google Cloud who contributed their time and insights to this paper. We hope you have found the issues raised thought-provoking and look forward to discussing them with you in more detail.

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# Endnotes

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